



State of Utah

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Governor

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Department of Environmental Quality

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Acting Executive Director

DIVISION OF AIR QUALITY
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Director

10007

Title V Operating Permit

PERMIT NUMBER: 2900001001

DATE OF PERMIT: July 19, 2004

Date of Last Revision: January 21, 2009

This Operating Permit is issued to, and applies to the following:

Name of Permittee:

Holcim (US) Inc.
6055 East Croydon Road
Morgan, UT 84050

Permitted Location:

Devil's Slide Plant
6055 E. Croydon Rd.
Morgan, UT 84050

UTM coordinates: 455,500 m Easting, 4,545,500 m Northing
SIC code: 3241 (Cement, Hydraulic)

UTAH AIR QUALITY BOARD

By:

Prepared By:

M. Cheryl Heying, Executive Secretary

Brandy Cannon

ENFORCEABLE DATES AND TIMELINES

The following dates or timeframes are referenced in
Section I: General Provisions of this permit.

Annual Certification Due: July 30 of every calendar year that this permit is in force.

Renewal application due: January 19, 2009

Permit expiration date: July 19, 2009

Definition of “prompt”: written notification within 14 days.

ABSTRACT

Holcim (US) Inc. operates the Devil's Slide cement manufacturing plant near Morgan, Utah. This plant has been in operation since 1947, with recent major modifications made to most of the process during 1996 and 1997. At the Devil's Slide plant, cement is made when raw materials such as limestone & sandstone (quarried on-site), iron ore, and gypsum are proportioned, ground, and mixed and then fed into a rotating kiln. The intense heat of the kiln alters the materials and recombines them into small stones called cement clinker. The clinker is cooled and ground with gypsum into a fine powdered cement. The final product is stored on site for later packaging and shipping. The major sources of air emissions are the combustion of fuels for the kiln operation and from the kiln and clinker cooling process. The Devil's Slide plant is a major source for emissions of PM₁₀, SO₂, NO_x and HAPs. This source is subject to NSPS Subparts A, Y, OOO, and MACT Subpart LLL.

OPERATING PERMIT HISTORY

Permit/Activity	Date Issued	Recorded Changes
Title V administrative amendment - enhanced AO (Project #OPP0100070006)	1/21/2009	Changes: To incorporate changes approved in DAQE-AN0100070024-08, dated November 6, 2008. Changes to the permit include: removal of the condition for off-site PM ₁₀ monitoring, removal of the condition specifying a silt loading level for paved surfaces, updates to language in the fugitive dust and haul road opacity conditions, and updates to approval order and rule references.
Title V administrative amendment by DAQ (Project #OPP0100070004)	11/13/2006	Changes: To incorporate changes approved in DAQE-AN0007019-06, dated August 30, 2006, which was a PSD major modification. Changes to the permit include a production increase, a restriction on PM ₁₀ stack venting, a schedule limitation for mining and material transport operations, a silt loading level for paved surfaces, and a requirement for off-site PM ₁₀ monitoring.
Title V administrative amendment by DAQ (Project #OPP0100070003)	11/7/2005	Changes: to incorporate the changes approved in DAQE-AN0007019-05, dated August 18, 2005, including the following: re-expression of the inline kiln/raw mill SO ₂ emission limit from 104 lb SO ₂ /hr to 475 lb SO ₂ /hr on a rolling 24-hour average, addition of an SO ₂ limit not to exceed 457 tons per rolling 12-month period, continuous emission monitoring system applied to the kiln stack for SO ₂ instead of the previous stack testing required every two years, change the underlying approval order number to the current number, and correction of any typographical errors.
Title V administrative amendment by DAQ (Project #OPP0100070002)	4/4/2005	Changes: To incorporate changes approved in DAQE-AN0007018-05, dated January 31, 2005, including the following: replace the clinker cooler cooling fans, add a heat exchanger, extend the clinker cooler length, and add two compartments to the clinker cooler dust collector.
Title V initial application (Project #OPP0100070001)	7/19/2004	

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Issued under authority of Utah Code Ann. Section 19-2-104 and 19-2-109.1, and in accordance with Utah Administrative Code R307-415 Operating Permit Requirements.

All definitions, terms and abbreviations used in this permit conform to those used in Utah Administrative Code R307-101 and R307-415 (Rules), and 40 Code of Federal Regulations (CFR), except as otherwise defined in this permit. Unless noted otherwise, references cited in the permit conditions refer to the Rules.

Where a permit condition in Section I, General Provisions, partially recites or summarizes an applicable rule, the full text of the applicable portion of the rule shall govern interpretations of the requirements of the rule. In the case of a conflict between the Rules and the permit terms and conditions of Section II, Special Provisions, the permit terms and conditions of Section II shall govern except as noted in Provision I.M, Permit Shield.

SECTION I: GENERAL PROVISIONS

I.A Federal Enforcement.

All terms and conditions in this permit, including those provisions designed to limit the potential to emit, are enforceable by the EPA and citizens under the Clean Air Act of 1990 (CAA) except those terms and conditions that are specifically designated as "State Requirements". (R307-415-6b)

I.B Permitted Activity(ies).

Except as provided in R307-415-7b(1), the permittee may not operate except in compliance with this permit. (See also Provision I.E, Application Shield)

I.C Duty to Comply.

I.C.1 The permittee must comply with all conditions of the operating permit. Any permit noncompliance constitutes a violation of the Air Conservation Act and is grounds for any of the following: enforcement action; permit termination; revocation and reissuance; modification; or denial of a permit renewal application. (R307-415-6a(6)(a))

I.C.2 It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. (R307-415-6a(6)(b))

I.C.3 The permittee shall furnish to the Executive Secretary, within a reasonable time, any information that the Executive Secretary may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. Upon request, the permittee shall also furnish to the Executive Secretary copies of records required to be kept by this permit or, for information claimed to be confidential, the permittee may furnish such records directly to the EPA along with a claim of confidentiality. (R307-415-6a(6)(e))

I.C.4 This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance shall not stay any permit condition, except as provided under R307-415-7f(1) for minor permit modifications. (R307-415-6a(6)(c))

I.D Permit Expiration and Renewal.

I.D.1 This permit is issued for a fixed term of five years and expires on the date shown under "Enforceable Dates and Timelines" at the front of this permit. (R307-415-6a(2))

I.D.2 Application for renewal of this permit is due on or before the date shown under "Enforceable Dates and Timelines" at the front of this permit. An application may be submitted early for any reason. (R307-415-5a(1)(c))

I.D.3 An application for renewal submitted after the due date listed in I.D.2 above shall be accepted for processing, but shall not be considered a timely application and shall not relieve the permittee of any enforcement actions resulting from submitting a late application. (R307-415-5a(5))

I.D.4 Permit expiration terminates the permittee's right to operate unless a timely and complete renewal application is submitted consistent with R307-415-7b (see also Provision I.E, Application Shield) and R307-415-5a(1)(c) (see also Provision I.D.2). (R307-415-7c(2))

I.E Application Shield.

If the permittee submits a timely and complete application for renewal, the permittee's failure to have an operating permit will not be a violation of R307-415, until the Executive Secretary takes final action on the permit renewal application. In such case, the terms and conditions of this permit shall remain in force until permit renewal or denial. This protection shall cease to apply if, subsequent to the completeness determination required pursuant to R307-415-7a(3), and as required by R307-415-5a(2), the applicant fails to submit by the deadline specified in writing by the Executive Secretary any additional information identified as being needed to process the application. (R307-415-7b(2))

I.F Severability.

In the event of a challenge to any portion of this permit, or if any portion of this permit is held invalid, the remaining permit conditions remain valid and in force. (R307-415-6a(5))

I.G Permit Fee.

I.G.1 The permittee shall pay an annual emission fee to the Executive Secretary consistent with R307-415-9. (R307-415-6a(7))

I.G.2 The emission fee shall be due on October 1 of each calendar year or 45 days after the source receives notice of the amount of the fee, whichever is later. (R307-415-9(4)(a))

I.H No Property Rights.

This permit does not convey any property rights of any sort, or any exclusive privilege. (R307-415-6a(6)(d))

I.I Revision Exception.

No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit. (R307-415-6a(8))

I.J Inspection and Entry.

I.J.1 Upon presentation of credentials and other documents as may be required by law, the permittee shall allow the Executive Secretary or an authorized representative to perform any of the following:

- I.J.1.a Enter upon the permittee's premises where the source is located or emissions related activity is conducted, or where records are kept under the conditions of this permit. (R307-415-6c(2)(a))
- I.J.1.b Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit. (R307-415-6c(2)(b))
- I.J.1.c Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practice, or operation regulated or required under this permit. (R307-415-6c(2)(c))
- I.J.1.d Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with this permit or applicable requirements. (R307-415-6c(2)(d))
- I.J.2 Any claims of confidentiality made on the information obtained during an inspection shall be made pursuant to Utah Code Ann. Section 19-1-306. (R307-415-6c(2)(e))

I.K Certification.

Any application form, report, or compliance certification submitted pursuant to this permit shall contain certification as to its truth, accuracy, and completeness, by a responsible official as defined in R307-415-3. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. (R307-415-5d)

I.L Compliance Certification.

- I.L.1 Permittee shall submit to the Executive Secretary an annual compliance certification, certifying compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. This certification shall be submitted no later than the date shown under "Enforceable Dates and Timelines" at the front of this permit, and that date each year following until this permit expires. The certification shall include all the following (permittee may cross-reference this permit or previous reports): (R307-415-6c(5))
- I.L.1.a The identification of each term or condition of this permit that is the basis of the certification;
- I.L.1.b The identification of the methods or other means used by the permittee for determining the compliance status with each term and condition during the certification period, and whether such methods or other means provide continuous or intermittent data. Such methods and other means shall include, at a minimum, the monitoring and related recordkeeping and reporting requirements in this permit. If necessary, the permittee also shall identify any other material information that must be included in the certification to comply with section 113(c)(2) of the Act, which prohibits knowingly making a false certification or omitting material information;
- I.L.1.c The status of compliance with the terms and conditions of the permit for the period covered by the certification, based on the method or means designated in Provision I.L.1.b. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 occurred; and

- I.L.1.d Such other facts as the Executive Secretary may require to determine the compliance status.
- I.L.2 The permittee shall also submit all compliance certifications to the EPA, Region VIII, at the following address or to such other address as may be required by the Executive Secretary: (R307-415-6c(5)(d))

Environmental Protection Agency, Region VIII
Office of Enforcement, Compliance and Environmental Justice
(mail code 8ENF)
1595 Wynkoop Street
Denver, CO 80202-1129

I.M Permit Shield.

- I.M.1 Compliance with the provisions of this permit shall be deemed compliance with any applicable requirements as of the date of this permit, provided that:
- I.M.1.a Such applicable requirements are included and are specifically identified in this permit, or (R307-415-6f(1)(a))
- I.M.1.b Those requirements not applicable to the source are specifically identified and listed in this permit. (R307-415-6f(1)(b))
- I.M.2 Nothing in this permit shall alter or affect any of the following:
- I.M.2.a The emergency provisions of Utah Code Ann. Section 19-1-202 and Section 19-2-112, and the provisions of the CAA Section 303. (R307-415-6f(3)(a))
- I.M.2.b The liability of the owner or operator of the source for any violation of applicable requirements under Utah Code Ann. Section 19-2-107(2)(g) and Section 19-2-110 prior to or at the time of issuance of this permit. (R307-415-6f(3)(b))
- I.M.2.c The applicable requirements of the Acid Rain Program, consistent with the CAA Section 408(a). (R307-415-6f(3)(c))
- I.M.2.d The ability of the Executive Secretary to obtain information from the source under Utah Code Ann. Section 19-2-120, and the ability of the EPA to obtain information from the source under the CAA Section 114. (R307-415-6f(3)(d))

I.N Emergency Provision.

- I.N.1 An "emergency" is any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under this permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error. (R307-415-6g(1))
- I.N.2 An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the affirmative defense is demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

- I.N.2.a An emergency occurred and the permittee can identify the causes of the emergency. (R307-415-6g(3)(a))
- I.N.2.b The permitted facility was at the time being properly operated. (R307-415-6g(3)(b))
- I.N.2.c During the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in this permit. (R307-415-6g(3)(c))
- I.N.2.d The permittee submitted notice of the emergency to the Executive Secretary within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. This notice fulfills the requirement of Provision I.S.2.c below. (R307-415-6g(3)(d))
- I.N.3 In any enforcement proceeding, the permittee seeking to establish the occurrence of an emergency has the burden of proof. (R307-415-6g(4))
- I.N.4 This emergency provision is in addition to any emergency or upset provision contained in any other section of this permit. (R307-415-6g(5))
- I.O **Operational Flexibility.**
- Operational flexibility is governed by R307-415-7d(1).
- I.P **Off-permit Changes.**
- Off-permit changes are governed by R307-415-7d(2).
- I.Q **Administrative Permit Amendments.**
- Administrative permit amendments are governed by R307-415-7e.
- I.R **Permit Modifications.**
- Permit modifications are governed by R307-415-7f.
- I.S **Records and Reporting.**
- I.S.1 Records.
- I.S.1.a The records of all required monitoring data and support information shall be retained by the permittee for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records, all original strip-charts or appropriate recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. (R307-415-6a(3)(b)(ii))
- I.S.1.b For all monitoring requirements described in Section II, Special Provisions, the source shall record the following information, where applicable: (R307-415-6a(3)(b)(i))
- I.S.1.b.1 The date, place as defined in this permit, and time of sampling or measurement.

- I.S.1.b.2 The date analyses were performed.
- I.S.1.b.3 The company or entity that performed the analyses.
- I.S.1.b.4 The analytical techniques or methods used.
- I.S.1.b.5 The results of such analyses.
- I.S.1.b.6 The operating conditions as existing at the time of sampling or measurement.
- I.S.1.c Additional record keeping requirements, if any, are described in Section II, Special Provisions.

I.S.2 Reports.

- I.S.2.a Monitoring reports shall be submitted to the Executive Secretary every six months, or more frequently if specified in Section II. All instances of deviation from permit requirements shall be clearly identified in the reports. (R307-415-6a(3)(c)(i))
- I.S.2.b All reports submitted pursuant to Provision I.S.2.a shall be certified by a responsible official in accordance with Provision I.K of this permit. (R307-415-6a(3)(c)(i))
- I.S.2.c The Executive Secretary shall be notified promptly of any deviations from permit requirements including those attributable to upset conditions as defined in this permit, the probable cause of such deviations, and any corrective actions or preventative measures taken. Prompt, as used in this condition, shall be defined as written notification within the number of days shown under "Enforceable Dates and Timelines" at the front of this permit. Deviations from permit requirements due to unavoidable breakdowns shall be reported in accordance with the provisions of R307-107. (R307-415-6a(3)(c)(ii))

I.S.3 Notification Addresses.

- I.S.3.a All reports, notifications, or other submissions required by this permit to be submitted to the Executive Secretary are to be sent to the following address or to such other address as may be required by the Executive Secretary:

Utah Division of Air Quality
P.O. Box 144820
Salt Lake City, UT 84114-4820
Phone: 801-536-4000

- I.S.3.b All reports, notifications or other submissions required by this permit to be submitted to the EPA should be sent to one of the following addresses or to such other address as may be required by the Executive Secretary:

For annual compliance certifications:

Environmental Protection Agency, Region VIII
Office of Enforcement, Compliance and Environmental Justice
(mail code 8ENF)
1595 Wynkoop Street
Denver, CO 80202-1129

For reports, notifications, or other correspondence related to permit modifications, applications, etc.:

Environmental Protection Agency, Region VIII
Office of Partnerships & Regulatory Assistance Air & Radiation Program
(mail code 8P-AR)
1595 Wynkoop Street
Denver, CO 80202-1129
Phone: 303-312-6440

I.T Reopening for Cause.

I.T.1 A permit shall be reopened and revised under any of the following circumstances:

I.T.1.a New applicable requirements become applicable to the permittee and there is a remaining permit term of three or more years. No such reopening is required if the effective date of the requirement is later than the date on which this permit is due to expire, unless the terms and conditions of this permit have been extended pursuant to R307-415-7c(3), application shield. (R307-415-7g(1)(a))

I.T.1.b The Executive Secretary or EPA determines that this permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of this permit. (R307-415-7g(1)(c))

I.T.1.c EPA or the Executive Secretary determines that this permit must be revised or revoked to assure compliance with applicable requirements. (R307-415-7g(1)(d))

I.T.1.d Additional applicable requirements are to become effective before the renewal date of this permit and are in conflict with existing permit conditions. (R307-415-7g(1)(e))

I.T.2 Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the Acid Rain Program. Upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into this permit. (R307-415-7g(1)(b))

I.T.3 Proceedings to reopen and issue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. (R307-415-7g(2))

I.U Inventory Requirements.

An emission inventory shall be submitted in accordance with the procedures of R307-150, Emission Inventories. (R307-150)

I.V Title IV and Other, More Stringent Requirements

Where an applicable requirement is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, Acid Deposition Control, both provisions shall be incorporated into this permit. (R307-415-6a(1)(b))

SECTION II: SPECIAL PROVISIONS

- II.A **Emission Unit(s) Permitted to Discharge Air Contaminants.**
(R307-415-4(3)(a) and R307-415-4(4))
- II.A.1 **Permitted Source**
Source-wide
- II.A.2 **GEN: Emergency Generators**
Two diesel-powered emergency backup generators, approx 755 HP and 166 HP.
- II.A.3 **Quarry: Quarry Operations & Stockpiles**
Drilling operations, rock blasting, truck loading, rock fall from dozer push, haul roads, limestone & sand storage piles and Cement Kiln Dust (CKD) storage pile. The drill rig is equipped with a baghouse.
- II.A.4 **Crusher: Impact Crusher & Conveying Operations**
Dump pocket/feeder (#211-AF1), impact crusher, conveyors and associated transfer points, with emissions controlled by baghouses (#291-BFx) or enclosures.
- II.A.5 **MSA: Preblending Hall**
Limestone & sandstone are pre-blended in an enclosed blending hall.
- II.A.6 **Coal: Coal Milling, Processing & Conveying**
Equipment for the handling, conveying, storage and milling of coal. Emissions are controlled by baghouses: HAC #L61-BF1 (mill discharge) and #L91-BF1 (bin vent). Equipment does not include conveying system used to convey coal from the mill to the kiln.
- II.A.7 **C-RawMealPrep: Raw Meal Preparation System**
Equipment used in preparation of kiln feed (raw meal), including material transfer points, conveyors, bag filters, bins. (HAC #31x-xxx to 39x-xxx excluding #361-RM1)
- II.A.8 **C-Clinker: Clinker Manufacture System - MHO**
Equipment for the calcination of raw material, including material transfer points, conveyors, bag filters, bins (HAC #411-xxx, 431-xxx, 4A1-xxx except 4A1-BFx).
- II.A.9 **C-Coal: Coal Transfer Equipment**
Equipment in the clinker manufacturing system for transfers from coal mill to the kiln (HAC #L91-xxx).
- II.A.10 **C-Kiln: In-Line Kiln/Raw Mill**
Emissions from five-stage kiln system (HAC #441-xxx, 461-xxx) and raw mill (#361-RM1) are controlled by main baghouse (#421-BF1). Alkali bypass emissions are controlled by baghouse (#4A1-BF1). Both baghouses exit through the main stack.
- II.A.11 **C-Cooler: Clinker Cooler**
Grate cooler (#417-GQ1) for cooling clinker, controlled by baghouse (#471-BF1).
- II.A.12 **C-CoolerSys: Clinker Cooler System - MHO**
Transfer equipment and dust control for clinker cooler system. (HAC #47x-xxx to 49x-xxx excluding 471-BF1, 471-GQ1).
- II.A.13 **C-FinishMill: Finish Mill Operations**
Equipment for grinding of clinker and additive addition, including material transfer points,

conveyors, bag filters, bins. (HAC #52x-xxx to 59x-xxx, K93-xxx & T93-xxx)

II.A.14 **C-Packing: Packing & Distribution System**

Equipment for shipping of cement products: conveyor transfer points, bins, bag filters and other miscellaneous transfer points. (HAC #61x-xxx to 6Ex-xxx)

II.A.15 **MHO-1: Material Handling Operations - Group 1**

All totally-enclosed storage bins, conveying system transfer points, bagging systems, and bulk loading/unloading systems identified in 40 CFR 63.1340, Subpart LLL as affected sources.

II.A.16 **MHO-2: Material Handling Operations - Group 2**

All partially-enclosed or unenclosed storage bins, conveying system transfer points, bagging systems, and bulk loading/unloading systems identified in 40 CFR 63.1340, Subpart LLL as affected sources.

II.A.17 **MHO-3: Material Handling Operations - Group 3**

All partially- or totally-enclosed storage bins, conveying system transfer points, bagging systems, and bulk loading/unloading systems identified in 40 CFR 63.1340, Subpart LLL as affected sources and that are equipped with a control device (PMCD).

II.B **Requirements and Limitations**

The following emission limitations, standards, and operational limitations apply to the permitted facility as indicated:

II.B.1 **Conditions on permitted source (Source-wide)**

II.B.1.a **Condition:**

Sulfur content of coal or any mixture of coals burned shall be no greater than 1.0 lb sulfur per MMBTU heat input. [Origin: DAQE-AN0100070024-08] Authority: R307-401-8(1)(a) [BACT]

II.B.1.a.1 **Monitoring:**

Certification of fuels shall be either by permittee's testing or test reports from the fuel marketer. Methods for determining sulfur content of coal and fuel oil shall be those methods of the American Society for Testing and Materials, UAC R307-203-1(4).

(a) For determining sulfur content in coal, ASTM Methods D3177-75 or D4239-85 are to be used.

(b) For determining sulfur content in oil, ASTM Methods D2880-71 or D4294-89 are to be used.

(c) For determining the gross calorific (or Btu) content of coal, ASTM Methods D2015-77 or D3286-85 are to be used.

II.B.1.a.2 **Recordkeeping:**

Results from laboratory analysis or vendor certifications shall be maintained in accordance with Provision S.1 in Section I of this permit.

II.B.1.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.b

Condition:

The permittee shall prepare and implement an operation and maintenance (O & M) plan in accordance with 40 CFR 63.1350(a). The plan shall include the following elements:

- (A) Procedures for proper operation and maintenance of the affected source and air pollution control devices in order to meet the emission and operating limits of this permit.
- (B) Corrective actions to be taken if visible emissions are observed from the raw mill and finish mill sweep and air separator pollution control devices during a daily Method 22 test.
- (C) Procedures to be used during an inspection of the components of the combustion system of the in-line kiln/raw mill which is to be performed at least once per year.
- (D) Procedures to be used to periodically monitor affected sources other than in-line kiln/raw mills, clinker coolers, and finish mills which are subject to opacity standards.

Failure to comply with any provision of the operations and maintenance plan shall be a violation of the standard. [Origin: 40 CFR 63 Subpart LLL] Authority: 40 CFR 63.1350

II.B.1.b.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.1.b.2

Recordkeeping:

The permittee shall maintain files of all information (including all reports and notifications) required by this condition in a form suitable and readily available for expeditious inspection and review. These files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. Requirements of Provision I.S.1 of this permit also apply. (origin: 40 CFR 63.1355).

II.B.1.b.3

Reporting:

In addition to the requirements in Section I of this permit, one summary report shall be submitted semiannually for the hazardous air pollutants monitored at each affected source. The summary report shall be entitled "Summary Report - Gaseous and Opacity Excess Emission and Continuous Monitoring System Performance" and shall contain the following information:

- (A) The company name and address of the affected source;
- (B) An identification of each hazardous air pollutant monitored at the affected source;
- (C) The beginning and ending dates of the reporting period;
- (D) A brief description of the process units;
- (E) The emission and operating parameter limitations from 40 CFR 63 Subpart LLL;
- (F) The monitoring equipment manufacturer(s) and model number(s);
- (G) All exceedances of maximum control device inlet gas temperature limits;
- (H) All failures to calibrate thermocouples and other temperature sensors as required;
- (I) All failures to maintain the activated carbon injection rate, and the activated carbon injection carrier gas flow rate or pressure drop, as applicable;
- (J) The results of any combustion system component inspections conducted within the reporting period;
- (K) All failures to comply with any provision of the operation and maintenance plan;
- (L) The date of the latest CMS certification or audit;
- (M) The total operating time of the affected source during the reporting period;
- (N) An emission data summary (or similar summary if the owner or operator monitors control system parameters), including the total duration of excess emissions during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of excess emissions expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period

into those that are due to startup/shutdown, control equipment problems, process problems, other known causes, and other unknown causes;

- (O) A CMS performance summary (or similar summary if the owner or operator monitors control system parameters), including the total CMS downtime during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of CMS downtime expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total CMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, nonmonitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes;
- (P) A description of any changes in CMS, processes, or controls since the last reporting period;
- (Q) The name, title, and signature of the responsible official who is certifying the accuracy of the report; and
- (R) The date of the report.

The owner or operator shall submit all reports to the Executive Secretary as well as a copy of each report to the EPA Regional office at:

EPA Region VIII Director
Air and Toxics Division
1595 Wynkoop Street
Denver, CO 80202-1129

The regional office may waive this requirement for any reports at its discretion. (origin: 40 CFR 63.10(e)(3)(vi) via 40 CFR 63.1354(b)(9))

II.B.1.c

Condition:

For all emission units subject to 40 CFR 63 Subpart LLL:

- (i) The permittee must implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the affected emission unit during periods of startup, shutdown, and malfunction, and a program of corrective action for malfunctioning process and air pollution control and monitoring equipment used to comply with the relevant standard. [40 CFR 63.6(e)(3)(i)]
- (ii) During periods of startup, shutdown, and malfunction, the permittee must operate and maintain the affected emission unit (including associated air pollution control and monitoring equipment) in accordance with the procedures specified in the startup, shutdown, and malfunction plan developed under paragraph (i) of this condition. [40 CFR 63.6(3)(3)(ii)]
- (iii) The permittee must maintain a current startup, shutdown, and malfunction plan and must make the plan available upon request for inspection and copying by the Executive Secretary. In addition, if the startup, shutdown, and malfunction plan is subsequently revised as provided in paragraph (v) of this condition, the permittee must maintain each previous (i.e., superseded) version of the startup, shutdown, and malfunction plan, and must make each such previous version available for inspection and copying by the Executive Secretary for a period of 5 years after revision of the plan. If at any time after adoption of a startup, shutdown, and malfunction plan the affected emission unit ceases operation or is otherwise no longer subject to the provisions of 40 CFR 63, the permittee must retain a copy of the most recent plan for 5 years from the date the affected emission unit ceases operation or is no longer subject to 40 CFR 63 and must make the plan available upon request for inspection and copying by the Executive Secretary. [40 CFR 63.6(e)(3)(v)]
- (iv) To satisfy the requirements of this condition to develop a startup, shutdown, and malfunction plan, the permittee may use the affected emission unit's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of this condition and are made available for inspection when requested by the Executive Secretary. [40 CFR 63.6(e)(3)(vi)]
- (v) The permittee may periodically revise the startup, shutdown, and malfunction plan as necessary to satisfy the requirements of 40 CFR 63 or to reflect changes in equipment or procedures at the affected emission unit. However, each such revision to a startup, shutdown, and malfunction plan

must be reported in the semiannual report required by this permit. If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the permittee developed the plan, the permittee must revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the affected emission unit during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control and monitoring equipment. In the event that the permittee makes any revision to the startup, shutdown, and malfunction plan which alters the scope of the activities at the affected emission unit which are deemed to be a startup, shutdown, or malfunction, or otherwise modifies the applicability of any emission limit, work practice requirement, or other requirement in a standard established under 40 CFR 63, the revised plan shall not take effect until after the permittee has provided a written notice describing the revision to the permitting authority. [40 CFR 63.6(e)(3)(viii)]

- (vi) Any revisions made to the startup, shutdown, and malfunction plan in accordance with the procedures established by 40 CFR 63 shall not be deemed to constitute permit revisions under this permit. Moreover, none of the procedures specified by the startup, shutdown, and malfunction plan shall be deemed to fall within the permit shield provision in this permit. [40 CFR 63.6(e)(3)(ix)]

[Origin: 40 CFR 63 Subpart A, LLL] Authority: 40 CFR 63 Table 1 to Subpart LLL

II.B.1.c.1

Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.1.c.2

Recordkeeping:

The permittee shall maintain relevant records for the affected emission unit of-

- (i) The occurrence and duration of each startup, shutdown, or malfunction of operation (i.e., process equipment); [40 CFR 63.10(b)(2)(i)]
- (ii) The occurrence and duration of each malfunction of the required air pollution control and monitoring equipment; [40 CFR 63.10(b)(2)(ii)]
- (iii) All required maintenance performed on the air pollution control and monitoring equipment; [40 CFR 63.10(b)(2)(iii)]
- (iv) Actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) when such actions are different from the procedures specified in the startup, shutdown, and malfunction plan; [40 CFR 63.10(b)(2)(iv)]
- (v) All information necessary to demonstrate conformance with the startup, shutdown, and malfunction plan when all actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. These records may take the form of a "checklist," or other effective form of recordkeeping that confirms conformance with the startup, shutdown, and malfunction plan for that event. [40 CFR 63.6(e)(3)(iii) & 40 CFR 63.10(b)(2)(v)]
- (vi) If an action taken by the permittee during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the startup, shutdown, and malfunction plan, and the affected emission unit exceeds any applicable emission limitation in the relevant emission standard, then the permittee must record the actions taken for that event. [40 CFR 63.6(e)(3)(iv)]

The permittee shall maintain files of all information (including all reports and notifications) required by this condition recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be

retained off site. The files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche. [40 CFR 63.1355(a) & 40 CFR 63.10(b)(1)]

Requirements of Provision I.S.1 of this permit also apply.

II.B.1.c.3

Reporting:

In addition to the reporting requirements specified in Section I of this permit, in the event of a startup, shutdown or malfunction, the following reporting requirements shall be followed:

Periodic startup, shutdown, and malfunction reports. If actions taken by the permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the startup, shutdown, and malfunction plan, the permittee shall state such information in a startup, shutdown, and malfunction report. Otherwise, such a report shall identify any instance where any action taken by a permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the startup, shutdown, and malfunction plan, but the affected emission unit does not exceed any applicable emission limitation in the relevant emission standard. Such a report shall also include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report shall consist of a letter, containing the name, title, and signature of the responsible official who is certifying its accuracy, that shall be submitted to the Executive Secretary semiannually. The startup, shutdown, and malfunction report shall be delivered or postmarked by the 30th day following the end of each calendar half. The startup, shutdown, and malfunction report may be submitted simultaneously with the excess emissions and continuous monitoring system performance reports. [40 CFR 63.1354(b)(4) & 40 CFR 63.10(d)(5)(i) & 40 CFR 63.6(e)(3)(iii)]

Immediate startup, shutdown, and malfunction reports. If an action taken by the permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures specified in the startup, shutdown, and malfunction plan, the permittee shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event. The immediate report required under this paragraph shall consist of a telephone call or facsimile (FAX) transmission to the Executive Secretary within 2 working days after commencing actions inconsistent with the plan, and it shall be followed by a letter, delivered or postmarked within 7 working days after the end of the event, that contains the name, title, and signature of the responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and describing all excess emissions and/or parameter monitoring exceedances which are believed to have occurred. [40 CFR 63.6(e)(3)(iv) & 40 CFR 63.10(d)(5)(ii) & 40 CFR 63.1354(b)(5)]

II.B.1.d

Condition:

Sulfur content of the any fuel oil combusted shall be no greater than 0.85 lbs sulfur per MMBTU heat input. [Origin: DAQE-AN0100070024-08] Authority: R307-401-8(1)(a) [BACT]

II.B.1.d.1

Monitoring:

Certification of fuels shall be either by permittee's testing or test reports from the fuel marketer. Methods for determining sulfur content of coal and fuel oil shall be those methods of the American Society for Testing and Materials, UAC R307-203-1(4).

(a) For determining sulfur content in coal, ASTM Methods D3177-75 or D4239-85 are to be used.

- (b) For determining sulfur content in oil, ASTM Methods D2880-71 or D4294-89 are to be used.
- (c) For determining the gross calorific (or Btu) content of coal, ASTM Methods D2015-77 or D3286-85 are to be used.

II.B.1.d.2 **Recordkeeping:**

Results from laboratory analysis or vendor certifications shall be maintained in accordance with Provision S.1 in Section I of this permit.

II.B.1.d.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.e **Condition:**

At all times, including periods of startup, shutdown, and malfunction, the permittee shall, to the extent practicable, maintain and operate any permitted plant equipment, including associated air pollution control equipment, in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [Origin: DAQE-AN0100070024-08] Authority: R307-401-8(2), 40 CFR 60.11(d)

II.B.1.e.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.1.e.2 **Recordkeeping:**

Permittee shall document activities performed to assure proper operation and maintenance. Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.1.e.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.f **Condition:**

All paved/unpaved roads and other operational areas that are used by mobile equipment shall be water sprayed and/or chemically treated and/or swept using a mobile sweeper to control fugitive dust. The application of water or chemical treatment shall be used for unpaved roads and unpaved operational areas. Treatment shall be of sufficient frequency and quantity to maintain surface material in a damp/moist condition unless the temperature is below freezing. The mobile sweeper shall operate as necessary to control visible fugitive dust emissions from paved surfaces. [Origin: DAQE-AN0100070024-08] Authority: R307-401-8(1)(a) [BACT], R307-205-7

II.B.1.f.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.1.f.2

Recordkeeping:

Instances of water and/or chemical treatment and/or mobile sweeping shall be recorded and maintained by the permittee for all periods when the plant is in operation. The records shall include the following items as applicable:

- (1) Date.
- (2) Number of treatments made, dilution ratio, and quantity.
- (3) Precipitation received, if any, and approximate amount.
- (4) Time of day that treatments are made.
- (5) Records of temperature if the temperature is below freezing.

Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.1.f.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.g

Condition:

The permittee shall comply with the applicable requirements for servicing of motor vehicle air conditioners pursuant to 40 CFR 82, Subpart B - Servicing of Motor Vehicle Air Conditioners. [Origin: 40 CFR 82] Authority: 40 CFR 82.30(b)

II.B.1.g.1

Monitoring:

The permittee shall certify, in the annual compliance statement required in Section I of this permit, its compliance status with the requirements of 40 CFR 82, Subpart B.

II.B.1.g.2

Recordkeeping:

All records required in 40 CFR 82, Subpart B shall be maintained consistent with the requirements of Provision S.1 in Section I of this permit.

II.B.1.g.3

Reporting:

All reports required in 40 CFR 82, Subpart B shall be submitted as required. There are no additional reporting requirements except as outlined in Section I of this permit.

II.B.1.h

Condition:

The permittee shall comply with the applicable requirements for recycling and emission reduction for class I and class II refrigerants pursuant to 40 CFR 82, Subpart F - Recycling and Emissions Reduction. [Origin: 40 CFR 82] Authority: 40 CFR 82.150(b)

II.B.1.h.1

Monitoring:

The permittee shall certify, in the annual compliance statement required in Section I of this permit, its compliance status with the requirements of 40 CFR 82, Subpart F.

II.B.1.h.2

Recordkeeping:

All records required in 40 CFR 82, Subpart F shall be maintained consistent with the requirements of Provision S.1 in Section I of this permit.

- II.B.1.h.3 Reporting:**
- All reports required in 40 CFR 82, Subpart F shall be submitted as required. There are no additional reporting requirements except as outlined in Section I of this permit.
- II.B.1.i Condition:**
- Emissions of SO₂ shall be no greater than 457 tons per rolling 12 month total. [Origin: DAQE-AN0100070024-08] Authority: R307-401-8(1)(a) [BACT]
- II.B.1.i.1 Monitoring:**
- The permittee shall install, calibrate, maintain, and continuously operate a continuous emissions monitoring system on the kiln main stack. The permittee shall record the output of the system for measuring the SO₂ emissions. The monitoring system shall comply with all applicable sections of R307-170, UAC and 40 CFR 60, Appendix B. Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under paragraph (d) 40 CFR 60.13, the permittee shall continuously operate all required continuous monitoring devices and shall meet minimum frequency of operation requirements as outlined in 40 CFR 60.13 and Section UAC R307-170.
- II.B.1.i.2 Recordkeeping:**
- The permittee shall keep the records specified in R307-170-8 and any additional records required by provision I.S.1 of this permit. These records shall be maintained in accordance with Provision I.S.1.
- II.B.1.i.3 Reporting:**
- The permittee shall comply with the reporting provisions in R307-170-7(5), R307-170-9 and Section I of this permit. For the purposes of I.S.2.c of this permit, prompt for this condition shall be defined as written notification by January 30, April 30, July 30, and October 30 for any deviations which occurred during the quarter which ended 30 days earlier.
- II.B.1.j Condition:**
- Mining operations and transporting of materials from the mine to the plant shall be limited to between 5:00 a.m. and 8:00 p.m. each day. [Origin: DAQE-AN0100070024-08] Authority: R307-401-8(1)(a) [BACT]
- II.B.1.j.1 Monitoring:**
- Records required for this permit condition will serve as monitoring.
- II.B.1.j.2 Recordkeeping:**
- Records shall be kept when mining operations and transporting of materials from the mine to the plant occur outside of the schedule listed above. Records shall be maintained in accordance with Provision I.S.1 of this permit.
- II.B.1.j.3 Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.1.k **Condition:**

All PM₁₀ stack emission releases shall be vented vertically without any restriction to upward momentum at or beyond the stack opening. [Origin: DAQE-AN0100070024-08] Authority: R307-401-8(1)(a) [BACT]

II.B.1.k.1 **Monitoring:**

Records required for this permit condition will serve as monitoring.

II.B.1.k.2 **Recordkeeping:**

Records shall be kept of each PM₁₀ stack that does not meet the venting requirements in the above condition. Records shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.1.k.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.2 **Conditions on GEN: Emergency Generators**

II.B.2.a **Condition:**

Hours of operation for maintenance purposes shall be no greater than 60 hours total per generator per rolling 12-month period. [Origin: DAQE-AN0100070024-08] Authority: R307-401-8(1)(a) [BACT]

II.B.2.a.1 **Monitoring:**

By the 20th day of each month, the permittee shall calculate the total hours of operation in the previous 12 months for maintenance firing purposes for each affected emission unit. Hours of operation for each affected emission unit shall be determined by an hour meter and/or a log.

II.B.2.a.2 **Recordkeeping:**

Records of hours of operation for maintenance firing purposes shall be kept on a monthly basis. Results of monitoring shall be maintained as described in Provision I.S.1 of this permit.

II.B.2.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.2.b **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Origin: DAQE-AN0100070024-08] Authority: R307-401-8(1)(a) [BACT]

II.B.2.b.1 **Monitoring:**

During any period that the emergency generator(s) is(are) operated for longer than 12 hours consecutively, visual observation(s) of each generator exhaust shall be made by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. The individual is not required to be a certified visual emissions observer (VEO). If any visible emissions are observed, then an opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, by a certified VEO. If the generator(s) continue to operate on

consecutive days following the initial observation, an opacity determination shall be performed on a daily basis.

II.B.2.b.2 Recordkeeping:

The permittee shall record the date of each visual opacity survey and keep a list of the emission points checked during the visual opacity survey. The permittee shall also keep a log of the following information for each observed visual emission: date and time visual emissions observed, emission point location and description, time and date of opacity test, and percent opacity. The records required by this provision and all data required by 40 CFR 60, Appendix A, Method 9 shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.2.b.3 Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.3 Conditions on Quarry: Quarry Operations & Stockpiles

II.B.3.a Condition:

Visible emissions shall be no greater than 20 percent opacity from haul roads & operational areas used by mobile equipment. [Origin: DAQE-AN0100070024-08] Authority: R307-401-8(1)(a) [BACT]

II.B.3.a.1 Monitoring:

An opacity survey of haul road traffic and mobile equipment in operational areas shall be performed on a monthly basis in accordance with procedures similar to 40 CFR 60, Appendix A, Method 9. The opacity determination shall be performed as follows: The requirement for observations to be made at 15-second intervals over a six-minute period shall not apply. Visible emissions shall be measured at the densest point of the plume but at a point not less than half the vehicle length behind the vehicle and not less than half the height of the vehicle.

II.B.3.a.2 Recordkeeping:

Results of opacity observations shall be recorded and maintained as described in Provision S.1 in Section I of this permit.

II.B.3.a.3 Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.3.b Condition:

Visible emissions shall be no greater than 20 percent opacity from stockpiles. [Origin: DAQE-AN0100070024-08] Authority: R307-401-8(1)(a) [BACT]

II.B.3.b.1 Monitoring:

A visual opacity survey of each affected emission unit shall be performed on a monthly basis by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. If visible emissions other than condensed water vapor are observed from an emission unit, an opacity determination of that emission unit shall be performed by a certified observer within 24 hours of the initial survey. The opacity determination shall be performed in accordance with 40

CFR 60, Appendix A, Method 9 for point sources, and in accordance 58 FR 61640 Method 203A for fugitive sources.

II.B.3.b.2 Recordkeeping:

The permittee shall record the date of each visual opacity survey and a list of the emission points checked during the visual opacity survey. The permittee shall maintain all records required by this provision and all data required by 40 CFR 60, Appendix A, Method 9 or by Method 203A in accordance with Provision I.S.1 of this permit.

II.B.3.b.3 Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.3.c Condition:

Visible emissions shall be no greater than 7 percent opacity from drill rig baghouse. [Origin: 40 CFR 60 Subpart OOO] Authority: 40 CFR 60.672

II.B.3.c.1 Monitoring:

A visual opacity survey of each affected emission unit shall be performed on a monthly basis by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. If visible emissions other than steam are observed from an emission unit, an opacity determination of that emission unit shall be performed by a certified observer within 24 hours of the initial survey. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.3.c.2 Recordkeeping:

The permittee shall record the date of each visual opacity survey and a list of the emission points checked during the visual opacity survey. The permittee shall maintain all records required by this provision and all data required by 40 CFR 60, Appendix A, Method 9 or by Method 203A in accordance with Provision I.S.1 of this permit.

II.B.3.c.3 Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.4 Conditions on Crusher: Impact Crusher & Conveying Operations

II.B.4.a Condition:

Visible emissions shall be no greater than 15 percent opacity from the crusher. [Origin: 40 CFR 60 Subpart OOO] Authority: 40 CFR 60.672

II.B.4.a.1 Monitoring:

A visual opacity survey of each affected emission unit shall be performed on a monthly basis by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. If visible emissions other than condensed water vapor are observed from an emission unit, an opacity determination of that emission unit shall be performed by a certified observer within 24 hours of the initial survey. The opacity determination shall be performed in accordance with 40

CFR 60, Appendix A, Method 9 for point sources, and in accordance 58 FR 61640 Method 203A for fugitive sources.

II.B.4.a.2 Recordkeeping:

The permittee shall record the date of each visual opacity survey and a list of the emission points checked during the visual opacity survey. The permittee shall maintain all records required by this provision and all data required by 40 CFR 60, Appendix A, Method 9 or by Method 203A in accordance with Provision I.S.1 of this permit.

II.B.4.a.3 Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.4.b Condition:

Visible emissions shall be no greater than 7 percent opacity from baghouse stacks. [Origin: 40 CFR 60 Subpart OOO] Authority: 40 CFR 60.672

II.B.4.b.1 Monitoring:

A visual opacity survey of each affected emission unit shall be performed on a monthly basis by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. If visible emissions other than steam are observed from an emission unit, an opacity determination of that emission unit shall be performed by a certified observer within 24 hours of the initial survey. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9.

II.B.4.b.2 Recordkeeping:

The permittee shall record the date of each visual opacity survey and a list of the emission points checked during the visual opacity survey. The permittee shall maintain all records required by this provision and all data required by 40 CFR 60, Appendix A, Method 9 or by Method 203A in accordance with Provision I.S.1 of this permit.

II.B.4.b.3 Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.4.c Condition:

Permittee shall install water sprays to control fugitive emissions in the crusher dump pocket. The sprays shall operate whenever dry conditions warrant or as determined necessary by the Executive Secretary. Sprays shall not be required to operate during periods of freezing temperatures. [Origin: DAQE-AN0100070024-08] Authority: R307-401-8(1)(a) [BACT]

II.B.4.c.1 Monitoring:

Visual inspections shall be made monthly to demonstrate compliance with this condition.

- II.B.4.c.2 Recordkeeping:**
- A log of the visual inspections shall be maintained in accordance with Provision I.S.1 of this permit, including the date and time of each inspection and the name of the person making the inspection.
- II.B.4.c.3 Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.4.d Condition:**
- Visible emissions shall be no greater than 10 percent opacity for fugitive emissions from transfer points on belt conveyors or any other Subpart OOO affected facility. [40 CFR 60 Subpart OOO] Authority: 40 CFR 60.672
- II.B.4.d.1 Monitoring:**
- A visual opacity survey of each affected emission unit shall be performed on a monthly basis by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. If visible emissions other than condensed water vapor are observed from an emission unit, an opacity determination of that emission unit shall be performed by a certified observer within 24 hours of the initial survey. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9 for point sources, and in accordance 58 FR 61640 Method 203A for fugitive sources.
- II.B.4.d.2 Recordkeeping:**
- The permittee shall record the date of each visual opacity survey and a list of the emission points checked during the visual opacity survey. The permittee shall maintain all records required by this provision and all data required by 40 CFR 60, Appendix A, Method 9 or by Method 203A in accordance with Provision I.S.1 of this permit.
- II.B.4.d.3 Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.4.e Condition:**
- Permittee shall install and operate baghouse dust collectors at all conveyor transfer points. The collectors shall operate whenever dry conditions warrant or as determined necessary by the Executive Secretary. [Origin: DAQE-AN0100070024-08] Authority: R307-401-8(1)(a) [BACT]
- II.B.4.e.1 Monitoring:**
- Visual inspections shall be made monthly to demonstrate compliance with this condition.
- II.B.4.e.2 Recordkeeping:**
- A log of the visual inspections shall be maintained in accordance with Provision I.S.1 of this permit, including the date and time of each inspection and the name of the person making the inspection.

II.B.4.e.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.4.f

Condition:

Emissions of particulate matter (PM) shall be no greater than 0.05 g/dscm (0.022 gr/dscf) from the baghouse stacks. [Origin: 40 CFR 60 Subpart OOO] Authority: 40 CFR 60.672

II.B.4.f.1

Monitoring:

Stack testing shall be performed as specified below:

- (a) Frequency. Emissions shall be tested at least once every five years, based on the date of the last test. Tests may also be required at the direction of the Executive Secretary.
- (b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.
- (c) Methods.
 - (1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.
 - (2) Sample Method - 40 CFR 60. Appendix A, Method 5 or Method 17 shall be used to determine the particulate matter concentration. The minimum sample volume shall be 1.70 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 deg. C (250 deg F), to prevent water condensation on the filter.
- (d) Calculations. To determine mass emission rates (lb./hr., etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation.
- (e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

II.B.4.f.2

Recordkeeping:

Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

II.B.4.f.3

Reporting:

The results of stack testing shall be submitted to the Executive Secretary within 60 days of completion of the testing. Reports shall clearly identify results as compared to permit limits and indicate compliance status. There are no additional reporting requirements for this provision except those specified in Section I of this permit.

II.B.5

Conditions on Coal: Coal Milling, Processing & Conveying

II.B.5.a

Condition:

Visible emissions shall be no greater than 20 percent opacity. [Origin: 40 CFR 60 Subpart Y] Authority: 40 CFR 60.252

- II.B.5.a.1 **Monitoring:**
- A visual opacity survey of each affected emission unit shall be performed on a monthly basis by an individual trained on the observation procedures of 40 CFR 60, Appendix A, Method 9. If visible emissions other than steam are observed from an emission unit, an opacity determination of that emission unit shall be performed by a certified observer within 24 hours of the initial survey. The opacity determination shall be performed in accordance with 40 CFR 60, Appendix A, Method 9.
- II.B.5.a.2 **Recordkeeping:**
- A log of the visual opacity survey(s) shall be maintained in accordance with Provision I.S.1 of this permit. If an opacity determination is performed, a notation of the determination will be made in the log. All data required by 40 CFR 60, Appendix A, Method 9 shall also be maintained in accordance with Provision I.S.1 of this permit.
- II.B.5.a.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.6 **Conditions on C-Kiln: In-Line Kiln/Raw Mill**
- II.B.6.a **Condition:**
- Visible emissions shall be no greater than 20 percent opacity for all 6-minute block averages. [Origin: 40 CFR 63 Subpart LLL] Authority: 40 CFR 63.1343
- II.B.6.a.1 **Monitoring:**
- Monitoring for this provision shall be as follows:
- (1) Except as provided in paragraph (2) below, the permittee shall install, calibrate, maintain, and continuously operate a COM located at the outlet of the affected unit's particulate matter control device to continuously monitor the opacity. The COM shall be installed, maintained, calibrated, and operated as required by R307-170, 40 CFR 63 subpart A and according to PS-1 of 40 CFR 60 appendix B.
 - (2) If an affected unit subject to this opacity limitation is controlled by a fabric filter with multiple stacks or an electrostatic precipitator with multiple stacks, the permittee may, in lieu of installing the continuous opacity monitoring system required by paragraph (1), monitor opacity in accordance with paragraphs (2)(i) through (ii) below. If the control device exhausts through a monovent, or if the use of a COM in accordance with the installation specifications of PS-1 of 40 CFR 60 appendix B is not feasible, the permittee shall monitor opacity in accordance with paragraphs (2)(i) through (ii) below.
 - (i) Perform daily visual opacity observations of each stack in accordance with the procedures of 40 CFR 60 Method 9. The Method 9 test shall be conducted while the affected source is operating at representative performance conditions. The duration of the Method 9 test shall be at least 30 minutes each day.
 - (ii) Use the Method 9 procedures to monitor and record the average opacity for each six-minute period during the test. (origin: 40 CFR 63.1350)

II.B.6.a.2

Recordkeeping:

Results of opacity observations from the COM shall be recorded and maintained as required in R307-170, 40 CFR 63.10(c), and as described in Provision I.S.1 of this permit. If a COM is not used, records shall be maintained in accordance with the test method and Provision I.S.1 of this permit.

II.B.6.a.3

Reporting:

Reports shall be submitted quarterly, as required by R307-170, Continuous Emission Monitoring Program. The reports are considered prompt notification of permit deviation required in Provision I.S.2.c of this permit, if all information required by Provision I.S.2.c is included in the report. If a COM is not used for monitoring, reports shall be submitted as required in Provision I.S.2 and the definition of 'prompt' shall be as given in I.S.2.c

II.B.6.b

Condition:

Emissions of PM₁₀ shall be no greater than 14 lbs/hr. [Origin: DAQE-AN0100070024-08] Authority: R307-401-8(1)(a) [BACT]

II.B.6.b.1

Monitoring:

Stack testing shall be performed as specified below:

- (a) Frequency. Emissions shall be tested every five years.
- (b) Notification. The Executive Secretary shall be notified at least 30 days prior to conducting any required emission testing. A source test protocol shall be submitted to DAQ when the testing notification is submitted to the Executive Secretary. The source test protocol shall be approved by the Executive Secretary prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Executive Secretary.
- (c) Methods.
 - (1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1.
 - (2) For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201 or 201A. 40 CFR 51, Appendix M, Method 202 shall be used to determine condensibles.
 - (3) For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5 or 5I as appropriate. The portion of the front half catch considered PM₁₀ shall be based on information in Appendix B of the fifth addition of the EPA document, AP-42, or other data acceptable to the Executive Secretary. Condensibles shall be determined using the back half catch.
 - (4) The condensibles shall not be used for compliance demonstration but shall be used for inventory purposes.
- (d) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation.
- (e) Production Rate During Testing. The production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

II.B.6.b.2

Recordkeeping:

Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

- II.B.6.b.3 Reporting:**
- In addition to the reporting requirements of Section I of this permit, the permittee shall submit the results of the stack tests to the Executive Secretary within 60 days of completion of the testing. Results shall clearly identify test results as compared to permit limits and indicate compliance status.
- II.B.6.c Condition:**
- Emissions of SO₂ shall be no greater than 475 lbs/hr on a rolling 24-hour average. [Origin: DAQE-AN0100070024-08] Authority: R307-401-8(1)(a) [BACT]
- II.B.6.c.1 Monitoring:**
- The permittee shall install, calibrate, maintain, and continuously operate a continuous emissions monitoring system on the kiln main stack. The permittee shall record the output of the system for measuring the SO₂ emissions. The monitoring system shall comply with all applicable sections of R307-170, UAC and 40 CFR 60, Appendix B. Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under paragraph (d) 40 CFR 60.13, the permittee shall continuously operate all required continuous monitoring devices and shall meet minimum frequency of operation requirements as outlined in 40 CFR 60.13 and Section UAC R307-170.
- II.B.6.c.2 Recordkeeping:**
- The permittee shall keep the records specified in R307-170-8 and any additional records required by provision I.S.1 of this permit. These records shall be maintained in accordance with Provision I.S.1.
- II.B.6.c.3 Reporting:**
- The permittee shall comply with the reporting provisions in R307-170-7(5), R307-170-9 and Section I of this permit. For the purposes of I.S.2.c of this permit, prompt for this condition shall be defined as written notification by January 30, April 30, July 30, and October 30 for any deviations which occurred during the quarter which ended 30 days earlier.
- II.B.6.d Condition:**
- Emissions of CO shall be no greater than 438 lbs/hr. [Origin: DAQE-AN0100070024-08] Authority: R307-401-8(1)(a) [BACT]
- II.B.6.d.1 Monitoring:**
- Stack testing shall be performed as specified here:
- (a) Frequency. The unit shall be tested at least once every two years based on the year of the most recent stack test. Tests may also be required at the direction of the Executive Secretary if the source is suspected to be in violation with other conditions of this permit.
 - (b) Notification. At least 30 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.
 - (c) Sample Point. The emission sample point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1. In addition, access that meets the standards of the Occupational Safety and Health Administration (OSHA) or the Mine Safety and Health Administration (MSHA) shall be provided to the test location.
 - (d) Methods.
 - (1) 40 CFR 60, Appendix A, Method 10 shall be used to determine CO emissions;

- (2) 40 CFR 60, Appendix A, Method 2 shall be used to determine stack gas velocity and volumetric flow rate.
- (e) Calculations. To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary to give the results in the specified units of the emission limitation.
- (f) Production Rate During Testing. The operational rate during all compliance testing shall be no less than 90% of the maximum rate achieved in the previous three (3) years.

II.B.6.d.2 Recordkeeping:

Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

II.B.6.d.3 Reporting:

In addition to the reporting requirements of Section I of this permit, the permittee shall submit the results of the stack tests to the Executive Secretary within 60 days of completion of the testing. Results shall clearly identify test results as compared to permit limits and indicate compliance status.

II.B.6.e Condition:

Emissions of NO_x shall be no greater than 1,817 tons per rolling 12 month total. [Origin: DAQE-AN0100070024-08] Authority: R307-401-8(1)(a) [BACT]

II.B.6.e.1 Monitoring:

The permittee shall install, calibrate, maintain, and continuously operate a continuous emissions monitoring system on the kiln main stack. The permittee shall record the output of the system for measuring the NO_x emissions. The monitoring system shall comply with all applicable sections of R307-170, UAC and 40 CFR 60, Appendix B. Except for system breakdown, repairs, calibration checks, and zero and span adjustments required under paragraph (d) 40 CFR 60.13, the permittee shall continuously operate all required continuous monitoring devices and shall meet minimum frequency of operation requirements as outlined in 40 CFR 60.13 and Section UAC R307-170.

II.B.6.e.2 Recordkeeping:

The permittee shall keep the records specified in R307-170-8 and any additional records required by provision I.S.1 of this permit. These records shall be maintained in accordance with Provision I.S.1.

II.B.6.e.3 Reporting:

The permittee shall comply with the reporting provisions in R307-170-7(5), R307-170-9 and Section I of this permit. For the purposes of I.S.2.c of this permit, prompt for this condition shall be defined as written notification by January 30, April 30, July 30, and October 30 for any deviations which occurred during the quarter which ended 30 days earlier.

II.B.6.f Condition:

The permittee shall use only the following fuels in the kiln:

- A. Coal
- B. Diaper Derived Fuel (DDF)
- C. Tire Derived Fuel (TDF)

- D. Natural Gas
- E. Coke
- F. Fuel Oil
- G. Used Oil
- H. Synthetic Fuel
- I. Wood
- J. Coal Additives consisting of alternative fuels approved by the Executive Secretary. Prior

to burning any proposed coal additive, the permittee shall obtain approval from the Executive Secretary. To obtain approval, the permittee shall submit Material Safety Data Sheets (MSDS) or the results of suitable tests giving data similar to a Proximate and Ultimate analysis of the proposed coal additive.

Approval by the Executive Secretary shall consist of a letter approving the use of the proposed coal additive. Approval is not required to change from one previously approved coal additive to another previously approved coal additive.

The average quantity of coal additives burned shall not be greater than 15% of the total daily heat input of the kiln and precalciner. The permittee may increase the average quantity of coal additives up to 25% of the total daily heat input of the kiln and precalciner upon approval by the Executive Secretary in accordance with the approval process described for new coal additives above. [Origin: DAQE-AN0100070024-08] Authority: R307-401-8(1)(a) (BACT)

II.B.6.f.1 Monitoring:

Records required for this permit condition will serve as monitoring.

II.B.6.f.2 Recordkeeping:

Records of material used as fuel in the kiln shall be maintained. Copies of Executive Secretary approval of each coal additive shall be maintained. All records shall be maintained in accordance with provision I.S.1 of this permit.

II.B.6.f.3 Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.6.g Condition:

The concentration of contaminants or parameters in any used oil fuel shall not exceed the following levels:

Arsenic 5 ppm by weight,
Cadmium 2 ppm by weight,
Chromium 10 ppm by weight,
Lead 100 ppm by weight,
Total Halogens 1,000 ppm by weight,
Sulfur 0.5 percent by weight.

Flash point of any used oil shall not be less than 100 degrees F.

Any used oil fuel that contains more than 1,000 ppm by weight of total halogens shall be considered a hazardous waste and shall not be burned in the kiln. [Origin: DAQE-AN0100070024-08] Authority: R307-401-8(1)(a) [BACT]

- II.B.6.g.1 **Monitoring:**
- The permittee shall provide test certification for each load of used oil fuel received. Certification shall be made either by permittee's testing or through test reports from the used oil fuel marketer. The oil shall be tested for halogen content using ASTM Method D-808-81, EPA Method 8240 or EPA Method 8260 before used oil fuel is burned.
- II.B.6.g.2 **Recordkeeping:**
- The permittee shall maintain records of fuel analyses or vendor documentation showing contaminant levels or property values for all used oil combusted. All records shall be documented and maintained consistent with the requirements of Provision S.1 in Section I of this permit.
- II.B.6.g.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.6.h **Condition:**
- As part of demonstration of compliance with the dioxin/furan emission limitation in this permit, the permittee shall operate the kiln such that the temperature of the gas at the inlet to the kiln particulate matter control device (PMCD) and alkali bypass PMCD, if applicable, does not exceed the applicable temperature limits (for both raw mill operating and not operating) as determined and established in accordance with 40 CFR 63.1349(b)(3)(iv). The permittee shall conduct an inspection of the components of the combustion system of each kiln or in-line kiln/raw mill at least once per year. [Origin: 40 CFR 63 Subpart LLL] Authority: 40 CFR 63.1344
- II.B.6.h.1 **Monitoring:**
- (1) The permittee shall install, calibrate, maintain, and continuously operate a continuous monitor to record the temperature of the exhaust gases from the kiln, in-line kiln/raw mill and alkali bypass, if applicable, at the inlet to, or upstream of, PM control devices. The recorder response range shall include zero and 1.5 times either of the average temperatures established during the performance test. The reference method shall be a National Institute of Standards and Technology calibrated reference thermocouple-potentiometer system or alternate reference, subject to approval.
 - (2) The permittee shall monitor and continuously record the temperature of the exhaust gases from the kiln, in-line kiln/raw mill and alkali bypass, if applicable, at the inlet to the PM control device.
 - (3) The three hour rolling average temperature shall be calculated as the average 180 successive one-minute average temperatures.
 - (4) Periods of time when one-minute averages are not available shall be ignored when calculating three-hour rolling averages. When one-minute averages become available, the first one-minute average is added to the previous 179 values to calculate the three-hour rolling average.
 - (5) When the operating status of the raw mill of the in-line kiln/raw mill is changed from off to on, or from on to off the calculation of the three-hour rolling average temperature must begin anew, without considering previous recordings.
 - (6) The calibration of all thermocouples and other temperature sensors shall be verified at least once every three months.

II.B.6.h.2

Recordkeeping:

The permittee shall maintain files of all information (including all reports and notifications) required by this condition in a form suitable and readily available for expeditious inspection and review. These files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. Requirements of Provision I.S.1 of this permit also apply. (origin: 40 CFR 63.1355).

II.B.6.h.3

Reporting:

Results shall be reported in the required MACT semi-annual summary report, and in accordance with Section I of this permit.

II.B.6.i

Condition:

Emissions of Dioxins/Furans (D/F) shall be no greater than 0.20 ng per dscm (8.7×10^{-11} gr per dscf) (TEQ) corrected to seven percent oxygen or 0.40 ng per dscm (1.7×10^{-10} gr per dscf) (TEQ) corrected to seven percent oxygen, when the average of the performance test run average temperatures at the inlet to the particulate matter control device is 204 deg. C (400 deg. F) or less. [Origin: 40 CFR 63 Subpart LLL] Authority: 40 CFR 63.1343

II.B.6.i.1

Monitoring:

- (a) Frequency. Emissions shall be tested every 30 months based on the date of the most recent stack test. The source may also be tested at any time if directed by the Executive Secretary.
- (b) Notification. At least 60 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.
- (c) Methods.
 - (1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.
 - (2) 40 CFR 60, Appendix A, Method 23 shall be used to determine the pollutant emission rate.
 - (3) 40 CFR 60, Appendix A, Method 2 shall be used to determine the volumetric flow rate.
 - (4) Performance tests shall be conducted separately while the raw mill of the in-line kiln/raw mill is under normal operating conditions and while the raw mill of the in-line kiln/raw mill is not operating. If the kiln or in-line kiln/raw mill is equipped with an alkali bypass, simultaneous performance tests of the kiln or in-line kiln/raw mill exhaust and the alkali bypass shall be performed; however, a performance test of the alkali bypass exhaust may be conducted when the raw mill of the in-line kiln/raw mill is not operating.
 - (5) Each performance test shall consist of three separate runs; each run shall be conducted under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with 40 CFR 63.7(e). The duration of each run shall be at least 3 hours, and the sample volume for each run shall be at least 2.5 dscm (90 dscf).
 - (6) The temperature at the inlet to the kiln or in-line kiln/raw mill PMCD, and where applicable, the temperature at the inlet to the alkali bypass PMCD, must be continuously recorded during the period of the Method 23 test, and the continuous temperature record(s) must be included in the performance test report.

- (7) One-minute average temperatures shall be calculated for each minute of each run of the test.
- (8) The run average temperature must be calculated for each run, and the average of the run average temperatures must be determined and included in the performance test report and will determine the applicable temperature limit in accordance with 40 CFR 63.1344(b).
- (9) If activated carbon injection is used for D/F control, the rate of activated carbon injection to the kiln or in-line kiln/raw mill exhaust, and where applicable, the rate of activated carbon injection to the alkali bypass exhaust, must be continuously recorded during the period of the Method 23 test, and the continuous injection rate record(s) must be included in the performance test report. In addition, the performance test report must include the brand and type of activated carbon used during the performance test and a continuous record of either the carrier gas flow rate or the carrier gas pressure drop for the duration of the test. The run average injection rate must be calculated for each run, and the average of the run average injection rates must be determined and included in the performance test report and will determine the applicable injection rate limit in accordance with §63.1344(c)(1).
- (d) Calculations. The concentration shall be determined for each test run, and the arithmetic average of the concentrations measured for the three runs shall be calculated and used to determine compliance.

II.B.6.i.2

Recordkeeping:

The permittee shall maintain files of all information (including all reports and notifications) required by this condition in a form suitable and readily available for expeditious inspection and review. These files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. Requirements of Provision I.S.1 of this permit also apply. (origin: 40 CFR 63.1355)

II.B.6.i.3

Reporting:

In addition to the reporting requirements of Section I of this permit, the permittee shall submit the results of the performance tests to the Executive Secretary in a notification of compliance status within 60 days of completion of the testing. Results shall clearly identify test results as compared to permit limits and indicate compliance status. (origin: 40 CFR 63.1354(b)(1))

II.B.6.j

Condition:

Emissions of particulate matter (PM) shall be no greater than 0.15 kilograms per megagram (0.30 lb/ton) of feed (dry basis). [Origin: 40 CFR 63 Subpart LLL] Authority: 40 CFR 63.1343

II.B.6.j.1

Monitoring:

The permittee shall conduct performance testing in accordance with 40 CFR 63.1349(b)(1) at least once every five years, based on the date of the initial performance test.

II.B.6.j.2

Recordkeeping:

Results of all stack testing shall be recorded and maintained in accordance with the associated test method and Provision S.1 in Section I of this permit.

II.B.6.j.3

Reporting:

In addition to the reporting requirements of Section I of this permit, the permittee shall submit the results of the stack tests to the Executive Secretary within 60 days of completion of the testing. Results shall clearly identify test results as compared to permit limits and indicate compliance status.

II.B.7

Conditions on C-Cooler: Clinker Cooler

II.B.7.a

Condition:

Production of clinker shall be no greater than 930,000 tons per rolling 12 month total. [Origin: DAQE-AN0100070024-08] Authority: R307-401-8(1)(a) [BACT]

II.B.7.a.1

Monitoring:

Compliance with the limitation shall be demonstrated through a rolling 12-month total. The permittee shall calculate a new 12-month total by the 20th day of each month using data from the previous 12 months. Records shall be kept on a daily basis when in operation.

II.B.7.a.2

Recordkeeping:

Results of monitoring shall be maintained in accordance with Provision I.S.1 of this permit.

II.B.7.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.7.b

Condition:

Visible emissions shall be no greater than 10 percent opacity for all 6-minute block averages. [Origin: 40 CFR 63 Subpart LLL] Authority: 40 CFR 63.1345

II.B.7.b.1

Monitoring:

Monitoring for this provision shall be as follows:

- (1) Except as provided in paragraph (2) below, the permittee shall install, calibrate, maintain, and continuously operate a COM located at the outlet of the affected unit's particulate matter control device to continuously monitor the opacity. The COM shall be installed, maintained, calibrated, and operated as required by R307-170, 40 CFR 63 subpart A and according to PS-1 of 40 CFR 60 appendix B.
- (2) If an affected unit subject to this opacity limitation is controlled by a fabric filter with multiple stacks or an electrostatic precipitator with multiple stacks, the permittee may, in lieu of installing the continuous opacity monitoring system required by paragraph (1), monitor opacity in accordance with paragraphs (2)(i) through (ii) below. If the control device exhausts through a monovent, or if the use of a COM in accordance with the installation specifications of PS-1 of 40 CFR 60 appendix B is not feasible, the permittee shall monitor opacity in accordance with paragraphs (2)(i) through (ii) below.
 - (i) Perform daily visual opacity observations of each stack in accordance with the procedures of 40 CFR 60 Method 9. The Method 9 test shall be conducted while the affected source is operating at representative performance conditions. The duration of the Method 9 test shall be at least 30 minutes each day.
 - (ii) Use the Method 9 procedures to monitor and record the average opacity for each six-minute period during the test. (origin: 40 CFR 63.1350)

II.B.7.b.2

Recordkeeping:

Results of opacity observations from the COM shall be recorded and maintained as required in R307-170, 40 CFR 63.10(c), and as described in Provision I.S.1 of this permit. If a COM is not used, records shall be maintained in accordance with the test method and Provision I.S.1 of this permit.

II.B.7.b.3

Reporting:

Reports shall be submitted quarterly, as required by R307-170, Continuous Emission Monitoring Program. The reports are considered prompt notification of permit deviation required in Provision I.S.2.c of this permit, if all information required by Provision I.S.2.c is included in the report. If a COM is not used for monitoring, reports shall be submitted as required in Provision I.S.2 and the definition of 'prompt' shall be as given in I.S.2.c

II.B.7.c

Condition:

Emissions of particulate matter (PM) shall be no greater than 0.05 kilograms per megagram (0.10 lb per ton) of feed (dry basis) to the kiln. [Origin: 40 CFR 63 Subpart LLL] Authority: 40 CFR 63.1345

II.B.7.c.1

Monitoring:

Stack testing shall be performed as specified below:

- (a) Frequency. Emissions shall be tested every five (5) years, based on the year of the initial performance test. Tests may also be required at the direction of the Executive Secretary.
- (b) Notification. At least 60 days before the test, the source shall notify the Executive Secretary of the date, time, and place of testing and provide a copy of the test protocol. The source shall attend a pretest conference if determined necessary by the Executive Secretary.
- (c) Methods.
 - (1) Sample Location - the emission point shall conform to the requirements of 40 CFR 60, Appendix A, Method 1, and Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approvable access shall be provided to the test location.
 - (2) Sample Method - 40 CFR 60, Appendix A, Method 5 shall be used to determine particulate matter emissions. Each test shall consist of three separate runs under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with 40 CFR 63.7(e). Each run shall be conducted for at least one hour, and the minimum sample volume shall be 0.85 dscm (30 dscf). The average of the three runs shall be used to determine compliance. A determination of the particulate matter collected in the impingers ('back half') of the Method 5 particulate sampling train is not required to demonstrate compliance with this particulate matter limitation, but may be used for purposes as directed by the Executive Secretary. (origin: 40 CFR 63.1349(b))

II.B.7.c.2

Recordkeeping:

The permittee shall maintain files of all information (including all reports and notifications) required by this condition in a form suitable and readily available for expeditious inspection and review. These files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. Requirements of Provision I.S.1 of this permit also apply. (origin: 40 CFR 63.1355)

II.B.7.c.3 **Reporting:**

In addition to the reporting requirements of Section I of this permit, the permittee shall submit the results of the stack tests to the Executive Secretary within 60 days of completion of the testing. Results shall clearly identify test results as compared to permit limits and indicate compliance status.

II.B.8 **Conditions on C-FinishMill: Finish Mill Operations**

II.B.8.a **Condition:**

Visible emissions shall be no greater than 10 percent opacity from the mill sweep or air separator air pollution control devices. [Origin: 40 CFR 63 Subpart LLL] Authority: 40 CFR 63.1347

II.B.8.a.1 **Monitoring:**

The permittee shall monitor opacity by conducting daily visible emissions observations of the mill sweep and air separator PMCD of these affected sources in accordance with Method 22 of Appendix A to 40 CFR 60. The Method 22 test shall be conducted while the affected source is operating at the representative performance conditions. The duration of the Method 22 test shall be six (6) minutes.

If visible emissions are observed during any Method 22 test the permittee must:

- (A) Initiate, within one hour, the corrective actions specified in the site specific operating and maintenance plan; and
- (B) Within twenty-four (24) hours of the end of the Method 22 test in which visible emissions were observed, conduct a 30-minute visual opacity test of each stack from which visible emissions were observed in accordance with 40 CFR 60 Method 9. (origin: 40 CFR 63.1350(e))

II.B.8.a.2 **Recordkeeping:**

The permittee shall maintain files of all information (including all reports and notifications) required by this condition in a form suitable and readily available for expeditious inspection and review. These files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. Requirements of Provision I.S.1 of this permit also apply. (origin: 40 CFR 63.1355)

II.B.8.a.3 **Reporting:**

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.9 **Conditions on MHO-1: Material handling operations - Group 1**

II.B.9.a **Condition:**

Visible emissions shall be no greater than 10 percent opacity. [Origin: 40 CFR 63 Subpart LLL] Authority: 40 CFR 63.1348

- II.B.9.a.1 **Monitoring:**
- In lieu of opacity monitoring, the affected transfer points shall be inspected monthly to ensure that the enclosures are operated and maintained as total enclosures. (origin: 40 CFR 63.1350(a)(4)(v))
- II.B.9.a.2 **Recordkeeping:**
- The permittee shall maintain files of all information (including all reports and notifications) required by this condition in a form suitable and readily available for expeditious inspection and review. These files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. Requirements of Provision I.S.1 of this permit also apply. (origin: 40 CFR 63.1355)
- II.B.9.a.3 **Reporting:**
- There are no reporting requirements for this provision except those specified in Section I of this permit.
- II.B.10 **Conditions on MHO-2: Material handling operations - Group 2**
- II.B.10.a **Condition:**
- Visible emissions shall be no greater than 10 percent opacity. [Origin: 40 CFR 63 Subpart LLL]
Authority: 40 CFR 63.1348
- II.B.10.a.1 **Monitoring:**
- Monitoring of visible emissions shall be performed as follows:
- (1) The permittee shall conduct a monthly 1-minute visible emissions test of each affected source in accordance with 40 CFR 60, Appendix A, Method 22. The test must be conducted while the affected source is in operation.
 - (2) If no visible emissions are observed in six consecutive monthly tests for any affected source, the permittee may decrease the frequency of testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, the permittee must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.
 - (3) If no visible emissions are observed during the semi-annual test for any affected source, the permittee may decrease the frequency of testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual test, the permittee shall resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.
 - (4) If visible emissions are observed during any Method 22 test, the permittee shall conduct a 6-minute test of opacity in accordance with 40 CFR 60, Appendix A, Method 9. The Method 9 test must begin within one hour of any observation of visible emissions.
 - (5) [reserved - this paragraph not applicable to this provision]
 - (6) If any partially enclosed or unenclosed conveying system transfer point is located in a building, the permittee shall have the option to conduct a Method 22 visible emissions monitoring test according to the requirements of paragraphs 1 through 4 of this condition for each such conveying system transfer point located within the building, or for the building itself, according to paragraph 7 of this condition.
 - (7) If visible emissions from a building are monitored, the requirements of paragraphs 1 through 4 of this condition apply to the monitoring of the building, and the permittee shall also test

visible emissions from each side, roof and vent of the building for at least 1 minute. The test must be conducted under normal operating conditions. (origin: 40 CFR 63.1350(a)(4))

II.B.10.a.2

Recordkeeping:

The permittee shall maintain files of all information (including all reports and notifications) required by this condition in a form suitable and readily available for expeditious inspection and review. These files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. Requirements of Provision I.S.1 of this permit also apply. (origin: 40 CFR 63.1355)

II.B.10.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.B.11

Conditions on MHO-3: Material handling operations - Group 3

II.B.11.a

Condition:

Visible emissions shall be no greater than 10 percent opacity at the outlet of the associated PMCD. [Origin: 40 CFR 63 Subpart LLL] Authority: 40 CFR 63.1348

II.B.11.a.1

Monitoring:

The permittee shall conduct a monthly 1-minute visible emissions test of each affected source in accordance with Method 22 of Appendix A to 40 CFR 60. The test must be conducted while the affected source is in operation.

If no visible emissions are observed in six consecutive monthly tests for any affected source, the testing frequency may decrease from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, testing must resume on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

If no visible emissions are observed during the semi-annual test for any affected source, the test frequency may decrease from semi-annually to annually for that affected source. If visible emissions are observed during any annual test, testing must resume on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests.

If visible emissions are observed during any Method 22 test, a 6-minute test, performed in accordance with 40 CFR 60 Method 9, must begin within one hour of observation of visible emissions.

II.B.11.a.2

Recordkeeping:

The permittee shall maintain files of all information (including all reports and notifications) required by this condition in a form suitable and readily available for expeditious inspection and review. These files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. Requirements of Provision I.S.1 of this permit also apply. (origin: 40 CFR 63.1355)

II.B.11.a.3

Reporting:

There are no reporting requirements for this provision except those specified in Section I of this permit.

II.C

Emissions Trading

(R307-415-6a(10))

Not applicable to this source.

II.D

Alternative Operating Scenarios.

(R307-415-6a(9))

Not applicable to this source.

SECTION III: PERMIT SHIELD

The following requirements have been determined to be not applicable to this source in accordance with Provision I.M, Permit Shield:

III.A.

R307-301-11, R307-301-12 (Gasoline Dispensing Facilities, Prohibited Activities)

This regulation is not applicable to the Permitted Source for the following reason(s): the plant is not located in a control area as defined in UACR 307-301-1, and the plant does not sell or dispense oxygenated gasoline. [Last updated November 3, 2008]

SECTION IV: ACID RAIN PROVISIONS

This source is not subject to Title IV. This section is not applicable. [R307-417-1]

REVIEWER COMMENTS

This operating permit incorporates all applicable requirements contained in the following documents:

Incorporates	DAQE-AN0100070024-08 dated November 6, 2008
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1. Comment on an item originating in Permit Application regarding Permitted Source
Denial of permit application shield requests: Shielding from the following regulatory citations was requested in the permittee's application, based on construction of the facilities being completed prior to the 1971 applicable dates: UAC R307-205 (20% opacity limitation for fugitives); UAC R307-201-3 (20% opacity limitation for visible emissions); 40 CFR Part 60, Subpart F (Standards of performance for portland cement plant); 40 CFR sec. 60.11(a),(b),(c), and (e), (Determining compliance with opacity limitations); 40 CFR 60.11(d) (General operating practices); 40 CFR 60.12 (Prohibition of concealing emissions). Since the application submittal date of October 10, 1995, the permittee has modified the existing facilities and constructed new facilities, making the permit shield requests non-grantable. [10/16/1998] [Last updated November 3, 2008]
2. Comment on an item originating in this permit regarding Permitted Source
Description of "opacity survey" for permittee: Several opacity limits are monitored using an opacity survey. For these, the person must read and understand the approach of Method 9 observations, though the person does not need to be certified. When required, the person moves to a position that would be allowed for a Method 9 observation, and looks at the emission point to see if anything is visible, similar to a Method 22. If nothing is visible besides steam, this is noted in the records and the next point is checked. If visible emissions are seen, a formal observation is required as described in the permit condition. [3/15/2004] [Last updated November 3, 2008]
3. Comment on an item originating in 40 CFR 63 Subpart LLL regarding Permitted Source
Exemption from NSPS: 40 CFR 63.1356 provides that "any affected source subject to the provisions of this subpart is exempt from otherwise applicable new source performance standard contained in subpart F or subpart OOO of part 60". All Subpart F affected facilities are covered by Subpart LLL, so no requirement from Subpart F is included in this permit. Requirements from Subpart OOO are included for those emission points that precede raw material storage. [12/23/2003] [Last updated November 3, 2008]
4. Comment on an item originating in DAQE-AN0100070024-08 regarding Permitted Source
Fugitive emission sources: Approval order condition 16 requires the permittee to '...abide by all applicable requirements of UAC R307-205 for Fugitive Emission ...sources.' Since no fugitive emission sources have been identified by the permittee, the opacity limits contained in R307-205-4 for fugitive emissions have not been included in the permit. [9/2/2008] [Last updated November 3, 2008]
5. Comment on an item originating in 40 CFR 63 Subpart A, LLL regarding Permitted Source
Startup, Shutdown and Malfunction Plan (SSMP), Permit Condition II.B.1.c: Location of copies of the SSMP - All of Holcim's affected emission units subject to Subpart LLL are controlled from a central control room except for cement loadout, which is locally controlled due to the need for weigh scales. Maintaining one copy of the SSMP in the central control room and additional copies, as needed, for each locally controlled affected emission unit, is considered reasonable. [8/22/2005] [Last updated November 3, 2008]

6. Comment on an item originating in 40 CFR 63 Subpart LLL regarding C-Kiln: In-Line Kiln/Raw Mill

Activated carbon injection not included: There is no information that activated carbon injection is used at this source, so none of the requirements from 63 Subpart LLL dealing with the issue are included unless left in for completeness of quotation of the MACT. [3/15/2004] [Last updated November 3, 2008]

7. Comment on an item originating in 40 CFR 63 Subpart LLL regarding C-Kiln: In-Line Kiln/Raw Mill

Kiln particulate matter emission limit vs. PM₁₀ limit: The kiln is subject to a limit of 0.15 g/Mg (0.30 lb/ton) of dry feed. The MACT requires a PM CEMS, but defers it until later rulemaking. The current AO includes a PM₁₀ limit of 14 lb/hr for the kiln, while clinker production is limited to 930,000 tons/yr. At full-time operation, which gives the lowest hourly production rate and thus highest PM₁₀/production ratio, the existing PM₁₀ limit equates to 0.132 lb/ton. If 51% or more of the particulate emissions are PM₁₀, the existing limit is more stringent than the MACT. However, confirming information is not available at this time, so both limits are included. Further information may result in subsuming the MACT limit under the PM₁₀ limit. [4/14/2004] [Last updated November 3, 2008]

8. Comment on an item originating in 40 CFR 63 Subpart LLL regarding C-Kiln: In-Line Kiln/Raw Mill

Kiln performance testing: Due to the complications and equations involved in the testing for the kiln, this permit references the MACT language rather than incorporating it. [12/24/2003] [Last updated November 3, 2008]

9. Comment on an item originating in 40 CFR 63 Subpart LLL regarding C-Kiln: In-Line Kiln/Raw Mill

Raw mill & raw material dryer opacity limits: This source uses kiln exhaust to dry raw material as it is ground in the raw mill. The raw mill baghouse vents to the same stack as the kiln, so only the kiln opacity requirement is included in this permit. To do otherwise would cause continual deviations due to the kiln exhaust. [12/24/2003] [Last updated November 3, 2008]